

# **STUDY OF WISCONSIN RETAILER EBT & FOOD COUPON COSTS**

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**EXECUTIVE SUMMARY**

In 1995 the Wisconsin Legislature directed the Wisconsin Department of Workforce Development (DWD) to implement electronic benefits transfer (EBT), a paperless food stamp system (Wisconsin Act 368). The Legislature also directed that in implementing EBT, the department, “shall, to the extent possible, maximize the use of existing point-of-sale (POS) terminals.” One potential obstacle to achieving this objective was retailer concern about the possible increased costs for conducting business under electronic benefits transfer (EBT). To alleviate this concern, DWD agreed to pay a fee of \$.08 per EBT food stamp transaction to retailers utilizing their own POS terminals. Under this agreement, the fee would be paid for a fixed period of two years following the rollout of the EBT project. DWD began implementing the EBT program in 2000 and at the same time commissioned a study to compare retailer costs associated with EBT to the cost of processing paper food stamp coupons (food coupons).

The first phase of the study was to determine the cost to retailers for accepting and processing food coupons. Field observations were conducted in those parts of the State where EBT had not yet been implemented. Retail stores were selected in cooperation with the Wisconsin Grocers Association (WGA). Stores included independents, local chains and national chains. In addition to field observations, a survey was sent to retailers to gather data on their operations. Once all of the data was collected a statistical analysis was performed.

The Phase I study was completed in June of 2001 and a Phase I report was issued by MAXIMUS, which was contracted to perform the study, to DWD on June 30, 2001. The results of the Phase I study show that the overall average cost per food coupon transaction is \$0.773.

Following the acceptance of the Phase I report by DWD, the MAXIMUS Project Team began work on Phase II. The same methodology was employed in the Phase II study as in Phase I. Stores were again selected from a list provided by the WGA, field observations were conducted, and a second survey was sent to the selected retailers. The same type of statistical analysis was performed on this data. The results of Phase II of the study show that the overall average cost per EBT transaction is \$0.218.

<b>Calculated Retailer Cost per Transaction for Food Coupons and EBT</b>		
<b>Description</b>	<b>Food Coupon Cost/Txn</b>	<b>EBT Cost/Txn</b>
Checkout clerk costs per transaction	\$0.112	\$0.105
Cash register close-out	\$0.138	\$0.020
Back-office general processing expense	\$0.110	\$0.005
Back-office bank deposit preparation	\$0.110	\$0.007
Checkout clerk training expense	\$0.079	\$0.036
Back-office clerical training expense	\$0.005	\$0.002
Cost of errors	\$0.219	N/A
Processing charge	N/A	\$0.042
Bank charge for deposit	N/A	\$0.002
<b>Total Retailer Cost Per Transaction</b>	<b>\$0.773</b>	<b>\$0.218</b>

EBT costs found in this study were also compared to the cost of using credit and debit cards, checks and cash. The external source for this comparison is a national study published by FMI in 2000<sup>1</sup>. That study encompassed 36 food retail stores throughout the United States. The FMI study of 36 stores, resulting in a cost per EBT transaction of \$0.24 validates the results of Phase II findings of \$0.218 per EBT transaction. The FMI national results also show that except for cash, EBT transactions are the least costly form of payment on a per transaction basis.

Nationally, only seven states including Wisconsin have chosen to pay transaction fees to retailers that use their own POS terminals to process EBT transactions. Of these states, at \$0.08, Wisconsin pays the highest transaction fee. Fees paid by the other six states range from \$0.014 to \$0.04. During regional operations in one county, Iowa paid a higher transaction fee (\$0.15) than Wisconsin. Iowa legislature recently rescinded the transaction fee and this action is waiting for approval by the governor. Iowa is in the procurement stage for statewide EBT.

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<sup>1</sup> *It All Adds Up: An Activity Based Costs Study of Retail Payments*, Conducted for the Food Marketing Institute by PricewaterhouseCoopers, Copyright©2000 Food Marketing Institute

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## STUDY OF WISCONSIN RETAILER EBT AND FOOD COUPON COSTS

### A. BACKGROUND

In accordance with 1995 Wisconsin Act 368, the Wisconsin Department of Workforce Development (DWD) is required to maximize the use of existing point-of-sale (POS) terminals in accepting and processing recipients' food stamp transactions. One potential obstacle to achieving this objective was retailer concern about the possible increased costs for conducting business under electronic benefits transfer (EBT). To alleviate this concern, DWD agreed to pay a fee of \$.08 per EBT food stamp transaction to retailers utilizing their own POS terminals. Under this agreement, the fee would be paid for a fixed period of two years following the rollout of the EBT project. During this period, a study was to be performed to determine the incremental costs to retailers for EBT as opposed to accepting and processing food coupons. Based on the results of the study and other relevant factors, the payment of fees to retailers will be revisited by DWD and the fee structure may be amended.

In July 2000, DWD contracted with MAXIMUS to determine the actual costs incurred by retailers processing paper food stamp coupons (food coupons) and processing EBT food stamp transactions on their own POS terminals, and to compare the difference in costs under the two environments. The study was to be completed in two phases; the first phase of the study was to determine the cost to the retailers for accepting and processing food coupons and the second phase the cost of EBT food stamp transactions.

At the time the study was commissioned, DWD had started the process of implementing EBT across the State, and had completed EBT implementation in five of seven State regions. There remained two regions within the State that had not converted to EBT. These regions, Region 6 and Region 7, were still operating within the food coupon environment. Region 6 is comprised of the western counties within the State and Region 7 is Milwaukee County. Regions 6 and 7 were scheduled to transition to EBT effective August 1, 2000 and September 1, 2000, respectively. Because these regions were still operating under the food coupon environment, they were selected for the Phase I study. A representative sample of retailers was selected, and fieldwork to determine retailer costs within the food coupon environment began in mid-July. MAXIMUS Project Team performed onsite data gathering of food coupon transaction processing times for Region 6 during July 21, 22, 23 and 25, 2000, and data gathering in Region 7 on August 11 and 12, 2000.

The second phase of the study determined the cost to retailers using their own POS terminals to conduct EBT food stamp transactions. The same methodology used for Phase I was also used in Phase II. In both studies, the average time (and labor cost) for the cashier processing food stamp transactions was added to all applicable variable costs for processing food stamp transactions, such as back office settlement and reconciliation, training, cost of errors, and banking or other applicable fees. In order to provide a reasonable comparison of Phase I and Phase II costs, and to provide the State with a comparison against its per transaction fee to retailers, all costs were calculated or reduced to a per transaction basis.

This report contains the combined results of the Phase I and Phase II studies and the comparison of the costs under the two systems. The final section of this report compares the

difference in costs between the two systems, and includes comparisons to the costs of accepting other tender types (e.g., credit and debit cards, checks and cash) taken from external sources. The intent of this comparison is to put the costs of accepting EBT as a tender type for payment in context with other payment tender types, as well as to act as a cross check for the results of the study. In addition, comparative information concerning other States that are reimbursing retailers for use of their POS terminals for EBT transactions has been provided in the final section.

## B. WORK PLAN

The Project Team used a combination of statistically valid survey techniques applied in a time and motion study environment, as well as retailer surveys, to gather the processing costs for food coupons and EBT. In Phase I members of the Project Team experienced in developing cost allocation methodologies used the data gathered from the fieldwork and retailer surveys to create an appropriately derived cost per transaction for food coupons. The Team also used derived cost estimates in Phase II to determine a cost per transaction for EBT. Because the intent of the study is to compare the difference in costs under the food coupon system and the EBT system for retailers utilizing their own POS terminals, only retailers that stated they would be using their own POS terminals for EBT were included in the study. Phases I and II are further defined below.

**PHASE I – Food Coupon Processing Costs** consisted of an analysis in different retailer environments (e.g., corporate food chains, independent single unit stores, independent multiple unit stores, and super food warehouses such as Wal-Mart) for accepting food coupons. Retailers in both rural and urban locations were part of the selected sample. The retailer costs associated with food coupons can be broken out into two categories:

- **Front-end lane costs** for performing food coupon redemption transactions. The Team performed time and motion studies in the different retail environments to determine the in-lane costs of accepting food coupons as tender for payment. The Team determined that the total number of transactions observed is adequate to ensure a statistically valid sample for the retail environment. Also included within this category are the clerk training costs, gathered through the use of a “Back Office Survey”<sup>2</sup> that was completed by store management, and in some cases supplemented with interviews by the consultant’s on-site observation team leader.
- **Redemption costs** include in-store, post-transaction costs associated with reconciling, bundling, and depositing food coupons. This information was gathered from back office survey forms, and in some cases supplemental interviews with store managers. It determined the time devoted to counting food coupons and to other operational costs that the store incurs in accepting food coupons.

**PHASE II - EBT Processing Costs** consisted of an analysis in different retailer environments and followed the same methodology used in Phase I. The retailer costs associated with EBT can be broken out into two categories.

- **Front-end lane costs** for performing EBT food stamp transactions. The Team performed time and motion studies in the different retail environments to determine the in-lane costs of accepting the EBT card as tender for payment. Also included in

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<sup>2</sup> Appendix A contains a copy of the *Retailer Cost Study – Data Gathering Plan* used for Phase I, Appendix B contains the Phase I Observation Form and Appendix C contains the Phase I Back Office Survey.

this category are the clerk training costs, and the cost of errors. Information was gathered through the use of a “Back Office Survey” that was completed by store management, and in some cases supplemented with interviews by the consultant’s on-site observation team leader.<sup>3</sup>

- Back office costs including in-store post-transaction costs for closing-out the EBT transactions at the register, reconciling the transactions and training back-office staff. One major difference between the food coupon and EBT processing environments is that under an electronic funds transfer (EFT) system, including credit, debit and EBT transactions, retailers often use third party processors (TPPs) as intermediaries to consolidate and route electronic transactions to the appropriate issuer for approval. As compensation for this service, TPPs are paid a fee for each transaction that is handled. In the Phase II study, for retailers using a TPP to handle EBT transactions, the Team had to verify the amount of the fee from the back office survey.

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<sup>3</sup> Appendix D contains the Phase II *Retailer Cost Study – EBT Data Gathering Plan*, Appendix E contains the Phase II Observation Form and Appendix F contains the Retailer EBT Processing Survey.



Team did not have another opportunity to observe paper food coupon transactions within this region.

Region 6 sampling included a total of 12 stores, nine of which had observation times ranging from 20.5 to 25.75 total observation hours per store. Three additional stores averaged five hours each for a total of 229 hours of observation in this region. Because a criterion for store selection was the volume of food coupon transactions, the retailers sampled accounted for approximately 40 percent of the total monthly food stamp sales occurring within Region 6. The categories of stores selected for the food coupon observations included corporate food chains, independent single unit stores, independent multiple unit stores, and a Super Wal-Mart (super food warehouse category). However, only a limited number of food coupon transactions were noted at the Wal-Mart<sup>4</sup> because the store had just recently opened for business. Therefore, those results were not included in the survey. The nine primary store observations were taken from July 21-23, with small store observations occurring on July 25th.

**Region 7 Coupon Observation Activity.** Region 7 sampling included nine stores, with observation times ranging from 22.5 to 24 total observation hours per store, for a total of 211.5 hours of observation in this region. The primary stores were again selected based on their volume of food coupon transactions, with stores selected by WGA and the Project Team representing approximately 38 percent of the monthly Milwaukee area food stamp transactions. The categories of stores selected included corporate food chains, independent single unit stores, and independent multiple unit stores. As there were no super food warehouses within the region, these types of stores were not included. The observations in Region 7 were taken on August 11-12, 2000. Unlike Region 6, the observation dates occurred during the food coupon issuance period. Consequently, the Region 7 sampling resulted in a much higher observation rate per store than what occurred in Region 6.

**Summary of Food Coupon Observation Activity.** In total, the coupon sample included 21 stores, 18 with over 20 hours of observation time each, and over 440 hours of transaction observation time.

<b>Phase I Observation Activity</b>			
<b>Region</b>	<b>Number of Stores Observed</b>	<b>Percentage of Food Stamp Sales for Region</b>	<b>Hours Observed</b>
6	12	40%	229
7	9	38%	211.5

***C.2 PHASE II: EBT ENVIRONMENT***

As in Phase I, Regions 6 and 7 were used for the Phase II study. In order to identify stores to be included in the study, the Project Team used a list of retailers provided by DWD that included total monthly food coupon sales by retailer. After a potential sample of stores was identified, the Team met with the WGA to identify which of these respective stores should be included in the observation sample, taking into consideration the type of store, volume of food

<sup>4</sup> Only two food coupon transactions were observed during the 22-hour observation period at the Wal-Mart store.

coupon transactions, cooperation of store manager, and other criteria as determined by the WGA. The WGA also contacted store managers to inform them of the time and dates of the sampling. In addition, WGA sent them the back office survey to be completed and, if possible, reviewed with store management by the Project Team during the observation taking.

Phase II of the project was not limited by the EBT rollout, which had been a major consideration in Phase I. In Phase II observations were conducted in the same six stores in the Milwaukee area (Region 7) that had been used in Phase I of the study. Six additional stores were also selected from the Madison area (located in Dane County which consists of the State's second largest concentration of population) and three stores in the Janesville/Beloit area of Rock County. The Dane and Rock County stores sampled during Phase II were selected from the list provided by the DWD after consultation with the WGA in the same manner as in Phase I. Generally high coupon/EBT volume stores were selected. Survey teams were led by the same people who had on-site experience during the Phase I observation process. Observations were performed on August 3, 2001 in Milwaukee, August 10, 2001 in Madison, and September 14, 2001 in Janesville/Beloit.

**Summary of EBT Observation Activity.** In total, the EBT sample in Phase II included 15 stores, ranging from 3.5 to 17.5 person-hours of observation time per store, with a total of 190 person-hours of observation time. Although the goal for observation activity for Phase II was to observe 50-60 "pure" uses of the EBT card, meaning that no other form of payment was presented with the EBT card, some of the stores observed fell short of providing the number of observations desired due to lower than anticipated sales activity and limited cooperation at one retail location. However the total number of observations remained adequate to derive a statistically valid conclusion.

<b>Phase II Observation Activity</b>			
<b>County</b>	<b>Number of Stores Observed</b>	<b>Percentage of all EBT Transactions for Grocery Stores and Food Markets per County</b>	<b>Hours Observed</b>
<b>Milwaukee</b>	6	25%	80.25
<b>Dane</b>	6	21%	58
<b>Rock</b>	3	26%	51.5

## D. SAMPLING RESULTS

### D.1 TRANSACTION PROCESSING

Payment tendered at all stores included a mixture of the following:

- Cash
- Checks
- Food Stamps
- Credit Cards
- WIC vouchers
- Debit Card
- EBT (during Phase I, EBT cards were used by recipients from regions that had been converted to EBT)

For purposes of the analysis, the study only includes transactions where a single tender type of food coupons or EBT card were used, as opposed to transactions where multiple tender types were used, such as food coupons in combination with cash, check, WIC, etc. Only the time required to process the payment was measured as defined within the two ***Retailer Cost Study – Data Gathering Plans*** (Appendix A and Appendix D) that were approved by the State. The time required to ring up the groceries (e.g., add up or scan the individual food items making up the customer’s purchase) was excluded from the transaction time. The measurement of time started once all of the groceries were scanned, and the total had been provided to the customer purchasing the groceries. The event that signified the completion of the transaction was the handing of the transaction receipt (e.g., transaction register tape) to the customer. Transaction time was measured in seconds.

The data collected in this study for average food coupon transaction times compares favorably with other studies regarding the time for processing food coupons (ABT Associates 46.0 seconds<sup>5</sup> and Purdue University 34.03 seconds<sup>6</sup>). Additional analysis was performed based upon the respective store categories. The results of the Phase I and Phase II studies are contained within the following tables.

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<sup>5</sup> “*The Impacts of the State-Initiated EBT Demonstrations on the Food Stamp Program*,” Prepared for the USDA, Food and Nutrition Service by Abt Associates Inc., June 1993.

<sup>6</sup> “*The Pennsylvania EBT Study: An Analysis of Retailer Net Incremental Costs of Accepting EBT Cards*,” Prepared for the Pennsylvania Food Merchants Association and the Food Marketing Institute by Robert Eskew and A. Charlene Sullivan of the Krannert Graduate School of Management, Purdue University, February 2000.

<b>Cashier Labor to Process a Food Stamp Transaction at the Cash Register</b>								
	<b>Total Stores</b>		<b>Independent Operators</b>		<b>Local Chains</b>		<b>Corporate Chains</b>	
	<b>Food Coupon</b>	<b>EBT</b>	<b>Food Coupon</b>	<b>EBT</b>	<b>Food Coupon</b>	<b>EBT</b>	<b>Food Coupon</b>	<b>EBT</b>
<b>Sample Count: Number of Transactions Observed</b>	1041	369	392	139	66	67	583	163
<b>Mean in Seconds</b>	49.8	46.44	49.8	55.80	40.3	61.14	50.9	32.91
<b>Median in Seconds</b>	42.6	41.83	44.1	47.63	35.8	55.09	43.2	26.68
<b>Minimum in Seconds</b>	5.4	2.30	5.8	17.58	9	22.86	5.4	2.30
<b>Maximum in Seconds</b>	271	186	217	181	270	182	271	186
<b>Confidence Level (95.0%)</b>	2.1	3.09	3.3	4.93	8.2	6.84	2.8	3.92

The average amount of time that was required for a clerk at the check-out lane to process an EBT transaction was approximately 46 seconds (46.44). This is virtually identical to the average time required to process a food coupon transaction, which was found to be 49.8 seconds in the Phase I study. A surprising result of the observations was the large distribution of times for processing the tender type of food coupons. The variability for the processing times occurred within all of the store categories, although to a lesser extent within the Local Chain category.

In the Phase I study the Team observed little variation in check out time between the Independent Operators and the Corporate Chains, but a noticeable difference with Local Chains. In Phase II the Team observed more variation with the Corporate Chains than with the Independent Operators and the Local Chains. The Team did not observe the same kind of large time distribution for processing EBT transactions in Phase II that was seen with the food coupons in Phase I. With the exception of a few outliers in the data, most of the observations cluster around the mean.

Cashier time distribution tables for Phases I and II, using a breakpoint of 7.5 seconds, were prepared from the data, and are shown on the following pages.

Phase I: Cashier Food Coupon Transaction Processing Time Distribution Table								
Range in Seconds	Total Stores		Independent Operators		Local Chains		Corporate Chains	
	Number of Transactions	Cumulative %						
7.5	9	.86%	3	.77%	0	.00%	6	1.03%
15	76	8.17%	32	8.93%	5	7.58%	39	7.72%
22.5	116	19.31%	39	18.88%	10	22.73%	67	19.21%
30	127	31.51%	44	30.10%	10	37.88%	73	31.73%
37.5	108	41.88%	44	41.33%	12	56.06%	52	40.65%
45	120	53.41%	41	51.79%	11	72.73%	68	52.32%
52.5	123	65.23%	50	64.54%	7	83.33%	66	63.64%
60	66	71.57%	19	69.39%	4	89.39%	43	71.01%
67.5	71	78.39%	34	78.06%	3	93.94%	34	76.84%
75	49	83.09%	24	84.18%	1	95.45%	24	80.96%
82.5	33	86.26%	12	87.24%	1	96.97%	20	84.39%
90	34	89.53%	12	90.31%	0	96.97%	22	88.16%
97.5	25	91.93%	11	93.11%	0	96.97%	14	90.57%
105	18	93.66%	5	94.39%	1	98.48%	12	92.62%
112.5	12	94.81%	4	95.41%	0	98.48%	8	94.00%
120	14	96.16%	2	95.92%	0	98.48%	12	96.05%
127.5	4	96.54%	2	96.43%	0	98.48%	2	96.40%
135	6	97.12%	3	97.19%	0	98.48%	3	96.91%
> 135	30	100.00%	11	100.00%	1	100.00%	18	100.00%

Phase II: Cashier EBT Food Stamp Processing Time Distribution Table								
Range in Seconds	Total Stores		Independent Operators		Local Chains		Corporate Chains	
	Number of Transactions	Cumulative %						
7.5	7	1.87%	0	0.00%	0	0.00%	7	4.29%
15	22	7.75%	0	0.00%	0	0.00%	22	17.79%
22.5	38	17.91%	3	2.08%	0	0.00%	35	39.26%
30	41	28.83%	8	7.64%	4	5.97%	29	57.06%
37.5	45	40.91%	19	20.83%	3	10.45%	23	71.17%
45	60	56.95%	33	43.75%	12	28.36%	15	80.37%
52.5	45	68.98%	20	57.64%	12	46.27%	13	88.34%
60	33	77.81%	17	69.44%	10	61.19%	6	92.02%
67.5	18	82.62%	9	75.69%	8	73.13%	1	92.64%
75	20	87.97%	9	81.94%	7	83.58%	4	95.09%
82.5	10	90.64%	4	84.72%	3	88.06%	3	96.93%
90	7	92.51%	5	88.19%	1	89.55%	1	97.55%
97.5	4	93.58%	1	88.89%	2	92.54%	1	98.16%
105	2	94.12%	1	89.58%	1	94.03%	0	98.16%
112.5	3	94.92%	2	90.07%	1	95.52%	0	98.16%
120	1	95.19%	1	91.67%	0	95.52%	0	98.16%
127.5	1	95.46%	1	92.36%	0	95.52%	0	98.16%
135	0	95.46%	0	92.36%	0	95.52%	0	98.16%
> 135	12	100.00%	6	100.00%	3	100.00%	3	100.00%
	369		139		67		163	

**D.2 BACKROOM LABOR ESTIMATES**

The second component of costs analyzed for the food coupon and EBT environments was the backroom office costs. These components included the cashier labor to close out the food stamp transactions at the register and EBT terminal, the reconciliation of store receipts with food coupons and EBT terminal receipts, bundling and preparing bank deposits of food coupons, preparation of accounting and internal forms, and the training of staff (cashier and back room staff) for coupon redemption and acceptance of EBT cards and EBT terminal close-out and reconciliation. These costs were estimated by store management personnel and in some cases reviewed in person with our observation team leaders.

**D.2.1 Phase I: Food Coupon Environment**

Phase I responses are broken out by the store type included in the transaction sampling and surveys. The number of back office surveys returned by store type was:

<b>Returns of Back Office Surveys</b>		
<b>Store Type</b>	<b>Surveys Mailed</b>	<b>Surveys Returned</b>
<b>Independent Operators</b>	10	9
<b>Local Chains</b>	2	1
<b>Corporate Chains</b>	8	4

The first additional cost analyzed was the cashier cost for closing out the food coupons at the register at the end of the processing shift. Store management estimated the time requirements to perform these tasks, as well as the other tasks analyzed, on the survey forms.

<b>Cashier Labor to Close-out Food Coupons at Register (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>Total</b>
<b>High</b>	15	2	10	15
<b>Low</b>	1	2	2	1
<b>Average</b>	6.56	2	4.75	5.71

The following tables reflect the results received for the other components of the backroom costs for handling food coupons.

<b>Back Office General Processing Labor Estimates (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>Total</b>
<b>High</b>	60	25	10	60
<b>Low</b>	5	25	2	2
<b>Average</b>	15.33	25	4.75	13.00

<b>Back Office Time to Prepare Deposit Estimates (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>Total</b>
<b>High</b>	60	20	10	60
<b>Low</b>	5	20	2	2
<b>Average</b>	16.87	20	4.75	11.00

<b>Time Estimates to Train Cashiers (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>Total</b>
<b>High</b>	2400	900	1200	2400
<b>Low</b>	10	900	150	10
<b>Average</b>	398.11	900	368	425.21

<b>Time Estimates to Train Back Office Staff (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>Total</b>
<b>High</b>	4800	0	600	4800
<b>Low</b>	15	0	60	15
<b>Average</b>	628.33	0	240	551.25

### D.2.2 Phase II: EBT Environment

Phase II costs were estimated by store management personnel in response to our second back office survey (Appendix F), and in some cases reviewed in person with observation team leaders. The WGA was responsible for sending out the surveys and urging their members to return them. Responses were broken out by the store types that were included in the transaction sampling and surveys. The number of back office surveys returned by store type was: Independent Operators – five (5), Local Chains – three (3), and Corporate Chains – six (6). Some respondents did not provide information for each category shown below. Averages are based on the number of respondents for each category.

The estimated time requirements to perform the close out function and the back office functions, based on information from the survey forms are:

<b>Cashier Labor to Close-out EBT Transactions at the Register (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>All</b>
<b>High</b>	5	1	3.5	5
<b>Low</b>	1	1	0	0
<b>Average</b>	2.250	1.00	1.30	1.650

<b>Back Office Labor to Reconcile the Register (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>All</b>
<b>High</b>	3	1	5	5
<b>Low</b>	3	1	1.5	1
<b>Average</b>	3.00	1.00	3.5	2.438

<b>Back Office Labor to Reconcile Deposit (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>All</b>
<b>High</b>	5	5	5	5
<b>Low</b>	1	1	3	1
<b>Average</b>	2.44	2.333	2.750	2.533

<b>Time Estimates to Train Cashiers (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>All</b>
<b>High</b>	60	300	480	480
<b>Low</b>	15	60	5	5
<b>Average</b>	33.75	180	112.5	103.846

<b>Time Estimates to Train Back Office Staff (In Minutes)</b>				
<b>Survey Results</b>	<b>Independents</b>	<b>Local Chains</b>	<b>Corp Chains</b>	<b>All</b>
<b>High</b>	60	360	480	480
<b>Low</b>	5	60	5	5
<b>Average</b>	31.25	200	112.5	107.692

## **E. FOOD STAMP PROCESSING COST CALCULATIONS**

The last task within the food stamp cost analysis was to apply a cost to the time being expended in processing food coupon and EBT transactions at the register and in the back office. Food coupon and EBT processing costs were differentiated between transaction processing costs (customer checkout and lane closing costs) and backroom costs (transaction processing, deposit preparation, and training).

### ***E.1 PHASE I: FOOD COUPON ENVIRONMENT***

The following chart details the average calculated customer checkout costs using transaction times from all stores of the stores sampled. Salary data used was obtained from information provided by those retailers returning the “Backroom Survey” form.

<b>Cashier Labor Cost to Process a Food Coupon Transaction at the Register</b>					
<b>Food Coupon Transaction Time / Observation</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	271.72	Seconds	\$0.500	\$0.609	\$0.765
<b>Low</b>	5.38	Seconds	\$0.010	\$0.012	\$0.015
<b>Average</b>	49.86	Seconds	\$0.092	<b>\$0.112</b>	\$0.140

Because the other components of food coupon processing costs are aggregate costs, there was a need to break this cost down into an average cost per transaction. The methodology used was to first determine the overall cost for the component, and divide the cost by the average number of food coupon transactions being performed, to arrive at an average cost per food coupon transaction. The following tables provide the estimated cost for each of the components that were measured.

<b>Cashier Labor Costs to Close-Out Food Coupons at the Register</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	15	Minutes	\$1.655	\$2.018	\$2.535
<b>Low</b>	1	Minutes	\$0.110	\$0.135	\$0.169
<b>Average</b>	5.714	Minutes	\$0.631	<b>\$0.769</b>	\$0.966

Backroom costs were broken out by daily expenses, that is, the costs that are expended on a daily basis for processing food coupons and preparing them for deposit into the stores' bank accounts, as well as interim ongoing costs, specifically the costs for training staff. The following tables reflect the cost required for the daily back office processing.

<b>Back Office Labor Costs for General Processing of Food Coupons</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	60	Minutes	\$8.613	\$10.012	\$12.077
<b>Low</b>	2	Minutes	\$0.287	\$0.334	\$0.403
<b>Average</b>	13.00	Minutes	\$1.866	<b>\$2.169</b>	\$2.617

<b>Back Office Labor Costs to Prepare Deposits</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	60	Minutes	\$8.613	\$10.012	\$12.077
<b>Low</b>	2	Minutes	\$0.287	\$0.334	\$0.403
<b>Average</b>	11.00	Minutes	\$1.579	<b>\$1.835</b>	\$2.214

The training expense is an interim expense that is dependent upon the number of new hires occurring over the period being measured. Within the backroom survey requested from the stores was an estimate of the number of new cashiers and new back office staff hired on an annual basis. The following tables reflect the cost per new employee for the training of new staff.

<b>Costs to Train Cashiers</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	2400	Minutes	\$344.50	\$400.47	\$483.07
<b>Low</b>	10	Minutes	\$1.43	\$1.67	\$2.01
<b>Average</b>	425.21	Minutes	\$61.04	<b>\$70.95</b>	\$85.59

<b>Costs to Train Back Office Staff</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	4800	Minutes	689.00	800.93	966.13
<b>Low</b>	15	Minutes	\$2.15	\$2.50	\$3.02
<b>Average</b>	551.25	Minutes	\$79.12	<b>\$91.98</b>	\$110.95

The survey also requested the average monthly loss attributed to errors in the processing of food coupon transactions. These results are contained within the following table:

<b>Costs of Errors</b>			
<b>Retailer Survey Results</b>		<b>Calculations Using Survey Hourly Wage Data</b>	
		<b>Low</b>	<b>High</b>
Average Monthly Cost of Errors		\$0.00	<b>\$102.30</b>

**E.2 PHASE II: EBT ENVIRONMENT**

**E.2.1 Retailer EBT Processing**

Just as the paper coupon processes, EBT processing costs were differentiated between transaction processing costs (customer checkout) and back office costs (lane closing costs, register and deposit reconciliation, and training).

The following chart details the average calculated cashier labor costs to process an EBT transaction, using transaction times from all of the stores sampled. Salary data used was obtained from information provided by those retailers returning the back office survey form in Phase I of the study.

**NOTE:** Since there was almost a year between the time the back office survey in Phase I was sent out and the distribution of the back office survey in Phase II, it was important not to introduce a new variable into the comparisons. Therefore, the labor rates obtained in the Phase II back office survey were not used. Instead, the initial rates obtained from the back office survey in Phase I were used. This eliminates, to a great extent, any potential problems with comparisons of the labor cost component.

<b>Cashier Labor Costs to Process an EBT Transaction</b>					
<b>EBT Transaction Time / Observation</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	186	Seconds	\$0.342	\$0.417	\$0.524
<b>Low</b>	2.3	Seconds	\$0.004	\$0.005	\$0.006
<b>Average</b>	46.66	Seconds	\$0.086	<b>\$0.105</b>	\$0.131

Because the other components of the EBT processing costs are aggregate costs, there was a need to break this cost down into an average cost per transaction. The methodology used was to first determine the overall cost for the component, and divide the cost by the average number of EBT transactions being performed, to arrive at an average cost per EBT transaction. The following tables provide the estimated cost for each of the components that were measured.

<b>Cashier Labor Costs to Close-Out EBT Transactions at the Register</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	5	Minutes	\$0.552	\$0.673	\$0.845
<b>Low</b>	0	Minutes	\$0.000	\$0.000	\$0.000
<b>Average</b>	1.650	Minutes	\$0.182	<b>\$0.222</b>	\$0.279

Back office costs were broken out by daily expenses, that is, the costs that were expended on a daily basis for reconciling the register, reconciling the deposit, and interim ongoing costs,

specifically the costs for training staff. The following tables reflect the costs associated with daily back office processing.

<b>Back Office Labor Costs to Reconcile the Register</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	5	Minutes	\$0.718	\$0.834	\$1.006
<b>Low</b>	1	Minutes	\$0.144	\$0.167	\$0.201
<b>Average</b>	2.009	Minutes	\$0.288	<b>\$0.335</b>	\$0.404

<b>Back Office Labor Costs to Reconcile the Deposit</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	5	Minutes	\$0.718	\$0.834	\$1.006
<b>Low</b>	1	Minutes	\$0.144	\$0.167	\$0.201
<b>Average</b>	2.533	Minutes	\$0.364	<b>\$0.423</b>	\$0.510

The training expense is an interim expense that is dependent upon the number of new hires occurring over the period being measured. The back office survey requested an estimate of the number of new cashiers and new back office staff that are hired on an annual basis. The following tables reflect the training cost per new employee. Since two of the stores in the survey were built in 2000, they had more new hires than the older more established stores.

<b>Costs to Train Cashiers</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$6.62</b>	<b>\$8.07</b>	<b>\$10.14</b>
<b>High</b>	480	Minutes	\$68.904	\$80.096	\$96.616
<b>Low</b>	5	Minutes	\$0.718	\$0.834	\$1.006
<b>Average</b>	103	Minutes	\$14.907	<b>\$17.328</b>	\$20.903

<b>Costs to Train Back Office Staff</b>					
<b>Retailer Survey Results</b>			<b>Calculations Using Survey Hourly Wage Data</b>		
			<b>Low</b>	<b>Average</b>	<b>High</b>
			<b>\$8.61</b>	<b>\$10.01</b>	<b>\$12.08</b>
<b>High</b>	480	Minutes	\$68.904	\$80.096	\$96.616
<b>Low</b>	5	Minutes	\$0.718	\$0.834	\$1.006
<b>Average</b>	107	Minutes	\$15.459	<b>\$17.970</b>	\$21.677

The one item that was part of the Phase I calculation that is not a part of the Phase II calculation is the cost of errors. In Phase I it was determined through the back office survey that the average monthly cost of errors in processing food coupons was \$102.30, which added \$0.219 to the cost of each food coupon transaction. Through observation and survey there were virtually no error costs associated with processing EBT transactions. Therefore, the cost of errors is not a cost factor for Phase II.

### E.2.2 Fees for Processing EBT

There are two cost items that were not part of the Phase I study that are a part of the Phase II study - EBT processing fees and bank fees. Retailers often use TPPs as intermediaries to consolidate and route electronic transactions to the appropriate issuer for approval. As compensation for this service, TPPs are paid a fee for each transaction that is handled. Banks may also charge retailers a fee to deposit EBT payments. These costs, if any, were derived from information received from the back office survey.

Of those establishments that responded to the back office survey in Phase II, 33.3 percent said that they were charged a fee by their TPP to process an EBT transaction. This fee ranged from a reported high of \$0.16 per transaction to a low of \$0.06 per transaction. None of the corporate stores that responded reported paying any type of fee. However, three of the corporate stores that reported no processing fees did report an offset. (The offset is the DWD payment of \$.08 per food stamp transaction on POS terminals owned or leased by retailers that signed an agreement with the EBT vendor.) Processing fees were reported for independents and local chain stores with no corresponding offset reported.

A per transaction processing fee was calculated from cost estimate information gathered in the back office survey. This charge was calculated by averaging the dollar cost from those survey responses indicating a cost together with a zero cost for survey responses indicating that they were not charged a fee. In this manner, the per transaction processing fee was calculated to be \$0.042.

TPP Processing Fees	
TPP Processing Fee per EBT Transaction	\$0.042

The second additional cost item for EBT transactions is the bank fees charged, if any. The back office survey showed that only 20 percent of the respondents were charged a bank fee. This fee ranged from a high of \$0.10 to a low of \$0.08. As with the processing charge, the bank charge was calculated by averaging the dollar cost from those survey responses indicating a cost together with a zero cost for survey responses indicating that they were not charged a fee. In this manner a per transaction bank fee was calculated to be \$0.002.

Bank Fees	
Bank Fee per EBT Transaction	\$0.002

**F. OVERALL COST PER FOOD STAMP TRANSACTION**

The final task within the retailer food coupon and EBT cost analysis was to determine the overall average cost per food stamp transaction accepted as tender type within the check out lane. This costs was calculated by determining the average time (and labor cost) for the clerk processing food stamps (food coupons or EBT) as a tender type, and subsequently adding all of the other variable costs for processing food coupons or EBT, calculated on a per transaction basis, to the check out costs.

**F.1 PHASE I: FOOD COUPON ENVIRONMENT**

In Phase I it was determined that the overall cost per food coupon transaction was \$0.773. The calculations used the following assumptions in deriving the costs:

- Average number of transactions handled per checkout lane per day was eight.
- Average number of lanes per store was six.
- Average number of food coupon transactions per store on a daily basis was 48 transactions.<sup>7</sup>
- Based upon the number of new hires on an annual basis per store, the average number of clerical staff requiring training on a monthly basis per store was 3.9 clerks.
- Based upon the number of new hires on an annual basis per store, the average number of backroom staff requiring training on a monthly basis was .18 persons.

The calculations to arrive at the total retailer cost for food coupon processing are as follows:

<b>Total Cost per Food Coupon Transaction</b>			
<b>Description</b>	<b>Cost Basis</b>	<b>Cost</b>	<b>Cost/Txn</b>
Checkout clerk costs per transaction	Per Transaction	\$0.112	\$0.112
Cash register close-out	Per Lane	\$0.769	\$0.138
Back-office general processing expense	Per Store	\$2.169	\$0.110
Back-office bank deposit preparation	Per Store	\$1.835	\$0.110
Checkout clerk training expense	Per Clerk	\$70.92	\$0.079
Back-office clerical training expense	Per Clerk	\$91.98	\$0.005
Cost of Errors	Per Transaction	\$0.219	\$0.219
<b>Total Cost Per Food Coupon Transaction</b>			<b>\$0.773</b>

<sup>7</sup> Although the average number of transactions on a daily basis is estimated to be 48, it should be noted that food stamp transactions are highly skewed to the beginning of the month when food coupons are issued to clients. Consequently in the beginning of the month, the daily average of transaction is much higher than 48, while at the end of the month, the average is subsequently much less than 48.

**F.2 PHASE II: EBT ENVIRONMENT**

The Phase II average cost per EBT transaction was calculated by determining the average time and labor cost for the clerk processing the EBT transaction, and subsequently adding all of the other variable costs for processing the EBT transaction, calculated on a per transaction basis, to the check out costs. The calculations are based on the following information:

- Average number of EBT transactions handled per checkout lane per day was 11.3.
- Average number of lanes per store was 5.5.
- Average number of EBT transactions per store on a daily basis was 62.1 transactions.
- Based upon the number of new hires on an annual basis per store, the average number of clerical staff requiring training on a monthly basis per store was 3.9 clerks.<sup>8</sup>
- Based upon the number of new hires on an annual basis per store, the average number of back office staff requiring training on a monthly basis was .2 persons.<sup>2</sup>

<b>Total Cost Per EBT Transaction</b>			
<b>Description</b>	<b>Cost Basis</b>	<b>Cost</b>	<b>Cost/Txn</b>
Checkout clerk costs per transaction	Per Transaction	\$0.105	\$0.105
Cash register close-out	Per Lane	\$0.222	\$0.020
Back-office general processing expense	Per Store	\$0.335	\$0.005
Back-office bank deposit reconciliation	Per Store	\$0.423	\$0.007
Checkout clerk training expense	Per Clerk	\$17.328	\$0.036
Back-office clerical training expense	Per Clerk	\$17.970	\$0.002
Processing charge	Per Transaction	\$0.042	\$0.042
Bank charge for deposit	Per Transaction	\$0.002	\$0.002
<b>Total Cost Per EBT Transaction</b>			<b>\$0.218</b>

<sup>8</sup> These figures come from the Backroom Survey in Phase I and are used to level the comparisons between Phase I and Phase II.

**G. CONCLUSIONS**

***G.1 COMPARISON OF FOOD COUPON PROCESSING COSTS TO EBT PROCESSING COSTS***

The results of Phase II of the study show that the overall average cost per EBT transaction is \$0.218. The differences in costs between Phase I and Phase II are shown in the following table.

<b>Phase I and Phase II Costs Per Transaction</b>			
<b>Description</b>	<b>Cost Basis</b>	<b>Phase I Paper Coupon Cost/Txn</b>	<b>Phase II EBT Cost/Txn</b>
Checkout clerk costs per transaction	Per Transaction	\$0.112	\$0.105
Cash register close-out	Per Lane	\$0.138	\$0.020
Back-office general processing expense	Per Store	\$0.110	\$0.005
Back-office bank deposit prep/reconciliation	Per Store	\$0.110	\$0.007
Checkout clerk training expense	Per Clerk	\$0.079	\$0.036
Back-office clerical training expense	Per Clerk	\$0.005	\$0.002
Cost of errors	Per Transaction	\$0.219	N/A
Processing charge	Per Transaction	N/A	\$0.042
Bank charge for deposit	Per Transaction	N/A	\$0.002
<b>Total Cost Per Transaction</b>		<b>\$0.773</b>	<b>\$0.218</b>

The comparison indicates that the transaction costs associated with the checkout function by the clerk are similar under either system, being \$0.112 for paper coupons and \$0.105 for EBT transactions. All of the other transaction costs, however, are significantly higher under the food coupon system than the EBT system, in most part because there are different types of services that need to be performed under the two systems and there are different costs associated with the different systems. For example, there is a cost of errors factor in the paper coupon system that was not found in the EBT system.

The analysis of the costs in Phase I and Phase II shows that the total expenses per transaction under the food coupon system are significantly greater than those under the EBT system.

***G.2 COMPARISON OF EBT COST TO THE COSTS OF ACCEPTING OTHER TENDER TYPES***

In this section the EBT costs found in this study are compared to the cost of using credit and debit cards, checks and cash. The external source for this comparison is a national study published by FMI in 2000<sup>9</sup>. That study encompassed 36 food retail stores throughout the United States. The FMI results were divided by geographic segments (Northeast, Midwest,

<sup>9</sup> *It All Adds Up: An Activity Based Costs Study of Retail Payments*, Conducted for the Food Marketing Institute by PricewaterhouseCoopers, Copyright©2000 Food Marketing Institute

South and West). The study's cost per transaction results for both the Midwest segment and for all the stores in their study are provided below.

<b>Food Marketing Institute Transaction Cost Study Results</b>		
<b>Type of Transaction</b>	<b>Cost per Transaction (Midwest)</b>	<b>Cost per Transaction (all stores)</b>
Cash	\$0.26	\$0.12
Checks	\$0.37	\$0.36
Food Stamp Coupons	\$0.25	\$0.35
WIC Checks	\$0.56	\$0.46
Credit/Off line Debit Cards	\$0.72	\$0.72
Online Debit Cards	\$0.37	\$0.34
EBT	\$0.29	\$0.24

The FMI study of 36 stores, resulting in a cost per EBT transaction of \$0.24 validates the results of Phase II findings of \$0.218 per EBT transaction. The FMI Midwest number is somewhat higher. The difference may be explained by sample size. The FMI national results also show that except for cash, EBT transactions are the least costly form of payment on a per transaction basis.

### ***G.3 COMPARISON OF WISCONSIN RETAILER EBT FEES TO OTHER STATES***

The Federal government has mandated that all states have operational EBT systems by October 2002. Subsequently, the majority of states now have operational systems and the remaining states are in the process of planning for implementing EBT. The following table identifies the State/EBT projects that have implemented or are planning to implement the policy of paying transaction fees to retailers utilizing their own equipment for processing food stamp transactions.

<b>States Paying Retailer Fees for EBT Transactions</b>		
<b>State/EBT Project</b>	<b>Fee Amount</b>	<b>Fee Mandated by Legislation</b>
Illinois	\$0.02	No
Indiana	TBD	Yes <sup>10</sup>
Iowa	\$0.15 (one county only)	Yes <sup>11</sup>
Minnesota	\$0.04	Yes
New Jersey	\$0.014	No
South Carolina	\$0.02	No
Texas	\$0.02	No
Wisconsin	\$0.08	Yes

<sup>10</sup> The State of Indiana has a legislative mandate that retailers will be paid a fee for EBT transactions. The legislation does not identify the amount of the fee or the type of transactions for which the retailer is to be paid the fee. The parameters of the fee are yet to be determined.

<sup>11</sup> With the approaching statewide implementation of EBT, the Legislature for the State of Iowa has recently eliminated the transaction fee. This legislation is waiting for approval by the governor's office.

Nationally, only a handful of states have chosen to pay transaction fees to retailers that use their own POS terminals to process EBT transactions. Of these states, only Iowa paid a higher transaction fee than Wisconsin. Iowa EBT operates on a regional level (in one county) and is in the procurement stage for statewide EBT. Iowa legislature has recently voted to eliminate the retailer transaction fee. The legislation is now waiting for approval by the State Governor.

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## APPENDIX A: RETAILER COST STUDY - DATA GATHERING PLAN

### Purpose:

This plan documents how cost data will be gathered from retailers accepting food coupons as payment for purchases. The data is being gathered in performance of a study for the State of Wisconsin of the costs incurred by retailers in accepting and processing a recipient's food coupons transactions. This data will be compared to the costs incurred by retailers in accepting and processing a recipient's food stamp transactions within an EBT environment, and the differences in cost when compared to transaction processing under the food coupon environment. However this plan only covers the gathering of data within the food coupon environment, a separate plan will be prepared for gathering cost data under an EBT environment.

### Background:

The Department of Workforce Development (DWD) is required to have a study performed by an independent entity to determine actual EBT costs incurred by retailers and any offsetting savings from the elimination of paper food coupon handling. Based on the study results and other relevant factors, DWD shall determine by the end of two years of EBT processing if a transaction fee shall continue to be paid and, if so, at what amount. DWD has contracted with Phoenix-MAXIMUS to perform this study.

### Gathering of Cost Data:

Data will be gathered from Wisconsin retailers selected to participate in the study. The selection criteria for retailers that have been requested to participate is defined within the *Retailer Cost Study - Survey Plan* document. Two methods will be used for gathering cost data. These are:

1. Direct observation in the form of time and motion studies will be performed of clerks accepting food coupons from customers as payment tender in the checkout lane.
2. Interviews with store management and other appropriate store personnel regarding the other costs associated with accepting food coupons.

Each method is discussed in more detail in the following sections.

**Direct Observation** The time required to process food coupons as a tender type will be gathered through direct observation. Only the time required to process the payment will be measured. The time required to ring up the groceries (e.g., add up or scan the individual food items making up the customer's purchase) will be excluded. The measurement of time will start once all of the groceries have been scanned, and the total has been provided to the customer purchasing the groceries. The event that will signify the completion of the transaction will be the handing of the transaction receipt (e.g., transaction register tape) to the customer. Transaction time will be measured in seconds.

Because the tender type will not initially be known, the measurement of time will be started for every purchase transaction. However, if and when it becomes apparent that the tender type is not food stamps, the measurement will stop, and the time will not be recorded.

It is anticipated that two types of food stamp purchase transactions will be measured. These types are:

1. Food coupons are the only tender type offered for payment.
2. Multiple tender types are offered for payment, such as food coupons and cash.

The full time to complete the payment process will be measured for both transaction types. The transaction type (only food stamps or food stamps and another tender type) will be clearly identified. A sample of the form to be used is included as Appendix A. It should be noted that vendor and in-store coupons are not considered a second payment tender type. The actual number of observations to be performed within each retailer location is defined within the *Retailer Cost Study - Survey Plan* document.

**Data Gathered through Interviews** Cost data relating to the processing of food coupons will also be gathered through interviews with store personnel, specifically store management and accounting personnel. The data to be gathered through the direct interviews is related to the back-room processing costs of accepting food coupons as a tender type. These costs include the reconciling, bundling, and depositing in a financial institution the food coupons. Data will also be gathered for ancillary front-end lane costs such as clerk training and clerical errors.

A questionnaire will be provided to the retailers selected to participate within the study prior to the start of observation of food coupon purchase transactions. When the project team arrives at the retailer location to gather transaction data through observations, the questionnaire will be reviewed with the store management. The official responses from the store will be recorded on the questionnaire by the survey team.

The questionnaire that will be used to gather the additional cost data is contained in Appendix B.

**APPENDIX B: PHASE I OBSERVATION FORM**

Date: \_\_\_\_\_ Observer \_\_\_\_\_

Observation start time \_\_\_\_\_ End time \_\_\_\_\_

Store Name: \_\_\_\_\_

Store Address: \_\_\_\_\_

Observations

<u>Obs</u>	<u>Other Tender</u> <sup>12</sup>	<u>Time</u>	<u>Txn Length</u>	<u>Txn Amount</u>	<u>ACK</u>
#1					
#2					
#3					
#4					
#5					
#6					
#7					
#8					
#9					
#10					
#11					
#12					
#13					
#14					
#15					
#16					
#17					
#18					

<sup>12</sup> Fill if applicable, Cash – CS, Check – CK, Credit Card – CC, Debit Card – DB, WIC – WIC, Other - OTH

**APPENDIX C: PHASE I OPERATING COSTS SURVEY**

Date: \_\_\_\_\_

Store Name: \_\_\_\_\_

Store Address: \_\_\_\_\_

\_\_\_\_\_

Store Manager Name: \_\_\_\_\_

Store Phone Number: \_\_\_\_\_

**A. Characteristics of retailer:**

1. What is the average dollar amount of food coupons accepted within a month?  
 \_\_\_\_\_
  
2. What is the average number of purchase transactions on a monthly basis where food coupons are used as the tender type? \_\_\_\_\_
  
3. How long has your store been accepting food coupons? \_\_\_\_\_
  
4. The following information relates to labor costs on an hourly basis for employees working within the store. This information will be used to compute costs for processing food coupons. Please provide the hourly wage rates, including benefits, paid for the following categories of personnel.

<u>Labor Category</u>	<u>Low rate</u>	<u>Average rate</u>	<u>High Rate</u>
Cashiers			
Back office support staff			
Supervisors who do daily closings and employee training			

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**B. Handling and Reconciliation:**

1. What is the average total dollar amount of food stamps maintained daily in registers in checkout lanes and in the back office used for purposes of making change for food stamp transactions? \_\_\_\_\_
2. What is the average amount of time spent on a daily basis per register in the daily closing process that is devoted to the handling of food stamps? \_\_\_\_\_
3. What is the average amount of time spent on a daily basis in the back office in reconciliation of the store receipts associated with the handling of food stamps?  
\_\_\_\_\_
4. What is the average amount of time spent on a daily basis in the back office counting and bundling food coupons for deposit, preparation of forms for deposit of food stamps at the bank, etc.? \_\_\_\_\_
5. The next set of questions relate to the deposit of food coupons at the store's financial institution.
  - a. How are food stamps delivered for deposit to your financial institution (armored car or deposits by store personnel)? \_\_\_\_\_
  - b. How often are food stamps deposited? \_\_\_\_\_
  - c. If picked up by armored carrier, what is the monthly cost of this service?  
\_\_\_\_\_
  - d. If taken to the financial institution by store personnel, which employee takes the deposit to the financial institution? \_\_\_\_\_
  - e. If deposited by store personnel, how long does the average trip to the financial institution take, from leaving the store to arriving back at the store after the deposit is made? \_\_\_\_\_
6. Do you pay a fee to the bank for their processing of food stamp deposits?  
\_\_\_\_\_
  - a. If a fee is paid, what is the fee per deposit? \_\_\_\_\_

- b. What is the average length of time in days from closing the register at the end of the business day to when funds from food stamp sales are available?  
 \_\_\_\_\_

7. What is the estimate of the average monthly cost of accounting and cashier errors associated with the processing of food stamp transactions (these are non-recoverable costs due to accounting errors, theft, etc.)? \_\_\_\_\_

**C. Employee Training:**

1. What is the number of new hires in cashier positions you made for the last year?  
 \_\_\_\_\_
2. What is the number of new hires for back office personnel you made for the last year?  
 \_\_\_\_\_
3. Who performs the training of new employees on food coupons?  
 \_\_\_\_\_
4. What is the average time and expense (materials, video, etc.) associated with training a new hire in the process of accepting food coupons?

<u>Category</u>	<u>Training Time</u>	<u>Training Expense</u>
Cashier		
Back office		

**D. Other Costs:**

1. What other costs not covered by the questionnaire are incurred by the Store in the processing food coupon?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## APPENDIX D: RETAILER COST STUDY – EBT DATA GATHERING PLAN

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### Purpose

This plan documents how cost data will be gathered from retailers using commercial Point-of-Sale (POS) devices for accepting the State of Wisconsin EBT Card as payment for food stamp purchases. The data is being gathered in performance of a study for the State of Wisconsin of the costs incurred by retailers in accepting and processing food stamp transactions under an electronic environment. This data will be compared to the costs incurred by retailers in accepting and processing a recipient's food stamp transactions within a food coupon environment (gathered in Phase 1 of this project), and the differences in operating cost between the two environments.

### Background

The Department of Workforce Development (DWD) is required to have a study performed by an independent entity to determine actual EBT costs incurred by retailers and any offsetting savings from the elimination of paper food coupon handling. Based on the study results and other relevant factors, DWD shall determine by the end of two years of EBT processing if a transaction fee shall continue to be paid and, if so, at what amount. DWD has contracted with MAXIMUS to perform this study.

### Gathering of Cost Data

Data will be gathered from Wisconsin retailers selected to participate in the study. The initial phase of the study defined different categories of retailers, and attempted to select a representative number of retailers from each of the categories. The categories of retailers that were initially identified for the study were:

- Independent Operators
- Local Chains
- Corporate Chains
- Super Warehouse Stores (e.g., Super WalMarts)

However because of the limited number of Super Warehouse Stores in Wisconsin, this category was not included within the study.<sup>13</sup>

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<sup>13</sup> Only one Super Warehouse Store was in the geographical area participating in the food coupon analysis, however as the Store had just started accepting food coupons and the number of food stamp transaction were very low, the results from the store were not included in the final food coupon cost analysis.

The intent in this phase of the study is to parallel the data gathering process used within the first phase of the study. Two methods will be used for gathering cost data. These are:

- 1) Direct observation – time and motion studies will be performed of clerks accepting the Wisconsin EBT card from customers as payment tender in the checkout lane.
- 2) Store survey – store management will be asked to complete a survey regarding the other costs associated with accepting the State of Wisconsin EBT card.

### **Direct Observation**

The time required to process purchase transactions using the Wisconsin EBT card as a tender type will be gathered through direct observation. Only the time required to process the payment will be measured. The time required to ring up the groceries (e.g., add up or scan the individual food items making up the customer's purchase) will be excluded. The measurement of time will start once all of the groceries have been scanned, and the total has been provided to the customer purchasing the groceries, either verbally or by entering the food stamp purchase amount into the POS device. The event that will signify the completion of the transaction will be the handing of the transaction receipt from the POS device to the customer. Transaction time will be measured in seconds.

Because the tender type may not always be known at the start of the purchase transaction, the measurement of time will be started for every purchase transaction. It is anticipated that two types of food stamp purchases transactions will be measured. These types are:

- 1) Wisconsin EBT card is the only tender type offered for payment.
- 2) Multiple tender types are offered for payment, such as the Wisconsin EBT card and cash.

The full time to complete the payment process will be measured for both transaction types, as well as other transaction types that will occur. The transaction type (only food stamps or food stamps and another tender type) will be clearly identified. A sample of the form to be used is included as Appendix A. It should be noted that vendor and in-store coupons are not considered a second payment tender type.

### **Data Gathered through Surveys**

Cost data relating to the processing of the Wisconsin EBT card will also be gathered through surveys and in-store interviews with store personnel, specifically store management and accounting personnel. The data to be gathered through the direct interviews is related to the back-room processing costs of accepting the Wisconsin EBT card as a tender type. These costs include the reconciling the daily dollar amount of

Wisconsin EBT transactions to the totals being deposited within the Store's bank account for EBT transactions, time spent on researching and reconciling differences, and transaction costs charged by Third Party Processor for handling the EBT transactions. Data will also be gathered for ancillary front-end lane costs such as clerk training and clerical errors.

The survey will be provided to the retailers participating in the gathering of checkout costs through direct observation, as well a number of additional retailers not participating in the direct observation of the checkout process. The study team will gather a representative number of responses from each retailer category so that a statistically valid sample can be analyzed to determine backroom costs. A copy of the survey will be provided to the State prior to starting the gathering of data from retailers.

### **Store Sample Selection Methodology**

At this point in the Study, the entire State of Wisconsin is operational on the EBT system. Food coupons are now only provided to recipients who are leaving the State and moving to a State where EBT has not been implemented, such as the State of Iowa. In this phase of the Study, the sample selection methodology will concentrate on having a statistically valid number of samples within each of the two data gathering techniques being used to obtain cost data. Experience during the first phase demonstrated that there was not a statistical difference in the costs for stores located in either urban or rural locations for the different store categories. However the analysis did show some deviation based upon the type of store being surveyed.

Twelve stores will be selected to participate in the direct observation of grocery checkout transactions. Of these twelve stores, a minimum of six of the stores will be from the group that participated in the first phase of the project. The survey team will select four stores from each of the following store categories:

- Independent Operators
- Local Chains
- Corporate Chains

It is the intention of the team to observe a minimum of 200 food stamp EBT transactions for each of the different store categories, for a minimum of 600 total food stamp EBT transactions. Observations will take place during the peak shopping days during the July food stamp issuance cycle. It is anticipated that these observation days will be July 5<sup>th</sup> and July 12<sup>th</sup>.

The strategy of the study team in the first phase of the study was to provide surveys only to stores that participated in the direct observation of food coupon transactions. However a problem experienced by the team in analyzing the results was the relatively low return rate for the surveys. In this phase of the study, the team intends to provide surveys to a store population that includes stores not participating in the direct observation data

gathering exercise. The return rate in the first phase was 65%, or 13 returned surveys out of 20. However, only one store in the local chain category returned a survey.

In this phase of the project the goal will be to obtain a minimum of five completed surveys for each of the three different categories. To accomplish this goal, surveys will be mailed and/or provided to stores in the following distribution pattern:

<b>Store Type Category</b>	<b>Number Of Selected Participants</b>
Independent Operators	10
Local Chains	10
Corporate Chains	10

Assuming a return rate of only 50% for each store category, this will ensure that the goal of obtaining five completed surveys for each store type category is accomplished.

**APPENDIX E: PHASE II OBSERVATION FORM**

**REVIEW OF GROCERY TRANSACTION PROCESSING TIME**

DATE: \_\_\_\_\_

OBSERVER: \_\_\_\_\_

STORE NAME/LOCATION: \_\_\_\_\_

SESSION START TIME: \_\_\_\_\_

SESSION END TIME: \_\_\_\_\_

SUPERVISOR INITIAL: \_\_\_\_\_

OBS #	TIME	TYPE OF TENDER (Circle all that apply)								AMOUNT	TNS	MIN.SEC	VALID'TN
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
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		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
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		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					
		Quest Card	Cash	Check	Credit Card	Debit Card	WIC	Other					

**APPENDIX F: RETAILER FOOD STAMP/EBT PROCESSING SURVEY**

1. Date: \_\_\_\_\_ Contact Person: \_\_\_\_\_ Phone Number \_\_\_\_\_

2. Store Name: \_\_\_\_\_

3. Store Address: \_\_\_\_\_

4. Is this survey being completed for just this store?  Yes  No

5. Average number of lanes open per day: \_\_\_\_\_

6. Hourly Pay Ranges:

	Low	Average	High
Cashiers			
Back Office Staff			
Supervisors/Trainers			

7. Average time it takes to closeout EBT food stamp transactions after lane is closed \_\_\_\_\_ minutes

8. Is a reconciliation performed of food stamp EBT transactions between register and the system authorizing EBT transactions?

Yes  No. If Yes, is reconciliation performed by  Register or  Store. Average time it takes to perform the reconciliation? \_\_\_\_\_ minutes.

How often is this done?  Daily  Weekly  Monthly

Where is this done?  Back Office  Central Location  Other \_\_\_\_\_

9. Average time it takes to reconcile the automated deposit for EBT food stamp transactions? \_\_\_\_\_ minutes

How often is this done?  Daily  Weekly  Monthly  Other \_\_\_\_\_

Where is this done?  Back Office  Central Location  Other \_\_\_\_\_

10. Are you charged a fee to process EBT food stamp transactions?  Yes  No

If yes, what is the fee? \_\_\_\_\_

Is this fee based on:  Per Transaction  Monthly Fee  Other \_\_\_\_\_

11. The State is currently paying a transaction fee of \$.08 per EBT food stamp transaction that is processed on a monthly basis.

Is this payment deposited to your bank account, or is it being used to offset your transaction processing costs?

Deposited  Offset against processing costs

12. Are food stamp EBT transactions deposited separately into your bank account, or is it included with other electronic transactions such as credit and/or ATM?

Separate  Combined → other transaction types included \_\_\_\_\_

13. Does your bank charge a fee for accepting the deposit for food stamp transactions?  No  Yes → If yes, what is the fee? \_\_\_\_\_

14. What is the average length of time before funds from EBT food stamp accepted in your store are available in your bank account? \_\_\_\_\_

15. Average time it takes to train cashiers in processing food stamp transactions? \_\_\_\_\_

16. Average time it takes to train back-office staff in processing food stamp transactions? \_\_\_\_\_

17. Are there any other costs that should be considered for processing EBT food stamp transactions? \_\_\_\_\_

18. Comments: \_\_\_\_\_

Thank you. Please **FAX to (608) 244-3560** or mail to: Dennis E. Malinowski, MAXIMUS, INC.

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